

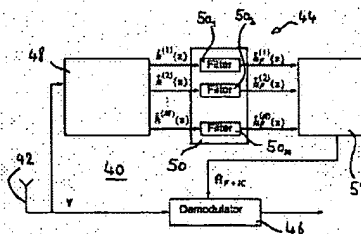
 Active

- ❖ L1: (17660) 455/21 455/63 455/37.1 455/303 455/427 455/101 455/562.1 455/
- ❖ L2: (695) L1 and ("interference near8 "adjacent channels")
- ❖ L3: (45) L2 and ("interference component" AND "adjacent channels")
- ❖ L5: (1) 3 and (block near2 coding).clm.
- ❖ L4: (3) L2 and ("interference component" AND "adjacent channels").clm.
- ❖ L6: (1) 4 and "channel coefficient".clm.
- ❖ L7: (1) 3 and "interference compensated estimates".clm.
- ❖ L8: (71) 2 and (interference near8 "adjacent channels").clm.
- ❖ L9: (12) 2 and (interference near8 "adjacent channels").clm.
- ❖ L10: (1) 9 and "interference compensated estimates".clm.

 Saved

- ✖ S4: (0) S3 and (artificial\$2 near8 interference)
- ✖ S3: (51) S2 and interference
- ✖ S2: (56) S1 and "block coding"
- ✖ S5: (2) S3 and (artificial\$2 near8 interference)
- ✖ S1: (613) carrier and "channel coefficient"
- ✖ S6: (5) S3 and artificial\$2
- ✖ S13: (40) S12 and "channel coefficient"
- ✖ S12: (3128) interference near8 "adjacent channel"

<p>(09) United States</p> <p>(02) Patent Application Publication</p> <p>Prati et al.</p>		<p>US 2004/0185201 A1</p> <p>(43) Pub. No.: US 2004/0185201 A1</p> <p>(43) Pub. Date: Sep. 23, 2004</p>	
<p>(04) CHANNEL ESTIMATION IN A MULTI-CARRIER TRANSMISSION DIVERSITY SYSTEM</p>		<p>(36) Foreign Application Priority Data</p>	
<p>(70) Inventors: Matthew Pratt, Neenah (WI), Eric Smith, Omaha (NE)</p>		<p>At. Ct. No.: 07/116,262</p>	
<p>Correspondence Address: NIXSON & NIXSON, P.C. 100 N. CLARK ROAD 8TH FLOOR ALEXANDRIA, VA 22304-0714 (US)</p>		<p>Foreign Classification</p>	
<p>(72) Attorney: William J. Long, L.L.M., Esquire, Baltimore (MD)</p>		<p>(51) Int. Cl.: H04L 29/06</p>	
<p>(52) Art. No.: 07/049,623</p>		<p>(53) U.S. Cl.: 370/330</p>	
<p>(56) Ref.: Jan. 19, 2002</p>		<p>(57) ABSTRACT</p>	
<p>Related U.S. Application Data</p>		<p>A method and circuit 400 for estimating channel responses to a multi-carrier broadcast diversity system operating in accordance with a multi-carrier scheme is disclosed. The method comprises channelizing both a master signal (510) and a slave signal (520) into channel components (530). A channel interface component from one slave antenna (540) is used to receive the estimated channel responses (550) of the channel components and channelizing, to generate the channel components (560) of the slave antenna (540). The channel interface component (560) is then used to estimate the channel responses (570) of the slave antenna (540).</p>	
<p>(03) Continuation of Application No. PCT/EP00/04603 Filed on Jan. 11, 2002</p>			



	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current	Ret	Inventor
1	<input type="checkbox"/>	<input type="checkbox"/>	US 20040185801 A1	20040923	16	Channel estimation in a multi carrier transmit diversity syste	455/101			Pauli, Mathias et al.



Drafts

Pending

Active

- ✖ L1: (17660) 455/21 455/63 455/37.1 455/303 455/427 455/101 455/562.1 455/63.4 37
- ✖ L2: (695) L1 and (interference near8 "adjacent channels")
- ✖ L3: (45) L2 and ("interference component" AND "adjacent channels")
- ✖ L4: (3) L2 and ("interference component" AND "adjacent channels").clm.
- ✖ L5: (1) 3 and (block near2 coding).clm.

Failed

Saved

- ✖ S4: (0) S3 and (artificial\$2 near8 interference)
- ✖ S3: (51) S2 and interference
- ✖ S2: (56) S1 and "block coding"
- ✖ S5: (2) S3 and (artificial\$2 near8 interference)
- ✖ S1: (613) carrier and "channel coefficient"
- ✖ S6: (5) S3 and artificial\$2
- ✖ S13: (40) S12 and "channel coefficient"
- ✖ S12: (3128) interference near8 "adjacent channel"
- ✖ S22: (13) S18 and component
- ✖ S24: (0) S23 and (block near3 coding)
- ✖ S19: (0) S18 and "interference component"
- ✖ S14: (22) S13 and diversity
- ✖ S10: (1) S7 and "channel coefficient"
- ✖ S9: (1) S7 and interference

United States
Patent Application Publication (Pub. No. US 2004/0185801 A1)
Pauli et al. (Pub. Date) Sep. 23, 2004

(54) CHANNEL ESTIMATION IN A MULTI-CARRIER TRANSMIT DIVERSITY SYSTEM
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

(51) Int. Cl. H04L 25/00 (2004.01)
(52) U.S. Cl. 370/310 (2003.01)

(53) Foreign Application Priority Data
Jul. 11, 2002 (EP) 02020002.2

(54) Channel Estimation in a Multi-Carrier Transmit Diversity System
(57) Abstract: A method and system for channel estimation in a multi-carrier system is disclosed. The method comprises determining a set of subcarriers (SCs) in each channel estimate channel coefficient (CC) using a channel estimation method based on a block coding and a channel estimation method based on a block coding.

BRS form IS&R form Image Text HTML

U	1	DocumentID	Issue Date	Pages	Title	Current OR	Current	Ret	Inventor
1	<input type="checkbox"/>	US 20040185801 A1	20040923	16	Channel estimation in a multi carrier transmit diversity system	455/101			Pauli, Mathias et al.

1	<input type="checkbox"/>	US 20040185801 A1	20040923	16	Channel estimation in a multi carrier transmit diversity system	455/101			Pauli, Mathias et al.
---	--------------------------	-------------------	----------	----	---	---------	--	--	-----------------------

Ready

NUM

U	1	Document ID	Issue Date	Pages	Title	Current OR	Current	Ret	Inventor
[Empty table body]									



Active

- ☒ L1: (3167) interference near8 "adjacent channel"
- ☒ L2: (42) L1 and "channel coefficient"
- ☒ L3: (23) L2 and diversity
- ☒ L4: (13) L3 and coding
- ☒ L5: (13) L4 and (estimate or estimation)
- ☒ L6: (13) L5 and component
- ☒ L7: (13) L6 and (filter\$3 or interpolation)
- ☒ L8: (0) 7 and (block near2 coding)
- ☒ L9: (0) 7 and ("interference component" near8 "adjacent channels")
- ☒ L10: (2) 2 and ("interference component" near8 "adjacent channels")
- ☒ L11: (2) 1 and "interference compensated estimates"
- ☒ L12: (17660) 455/21 455/63 455/37.1 455/303 455/427 455/101 455/562.1 45
- ☒ L13: (695) 12 and (interference near8 "adjacent channels")
- ☒ L15: (1) 14 and "interference compensated estimates"
- ☒ L14: (7) 13 and ("interference component" near8 "adjacent channels")

☒ Failed

☒ Saved

 ☒ Birds

 Default operator: ☒ Highlight all hit terms initially

13 and ("interference component" near8 "adjacent channels")

	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current Ret	Inventor
3	<input type="checkbox"/>	<input type="checkbox"/>	US 6937871 B2	20050830	10	Anti-demodulator circuit, filtering device and demodula	455/501	375/323; 375/324;	Dick; Burkhard
4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6597750 B1	20030722	12	Opposite polarization interference cancellation in sat	375/347	375/349; 375/350	Knutson, Paul Gotha et al.
5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6256486 B1	20010703	29	Method and apparatus for measuring co-channel interfer	455/296	455/450; 455/67.13	Barany, Peter A. et al.
6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6148045 A	20001114	18	Digital broadcast receiver	375/344	375/329	Taura; Kenichi et al.
7	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 6028900 A	20000222	17	Digital broadcast receiver	375/344	329/304; 375/260;	Taura; Kenichi et al.

☒ Hits ☒ Details ☒ HTML

Ready

NUM

☒ Active

- Failed**

 Saved

- ✖ S4: (0) S3 and (artificial\$2 near8 interference)
- ✖ S3: (51) S2 and interference
- ✖ S2: (56) S1 and "block coding"
- ✖ S5: (2) S3 and (artificial\$2 near8 interference)
- ✖ S1: (613) carrier and "channel coefficient"
- ✖ S6: (5) S3 and artificial\$2

(24) United States
 (25) Patent Application Publication
 (26) Pub. No.: US 2004/0185801 A1
 (27) Pub. Date: Sep. 23, 2004

(7) Inventors: Matthew Pecht, Menlo Park, CA; Erik
Sjostrom, Cheshire, CT

Correspondence Address:
NIXON & VANDEKIEFF, PC
1200 N CLARE ROAD
EIGHT FLOOR

(U) Assignee: Telecommunications Lab - External
Burlington (AT)

(21) Aggl. Soc. 18790, 823

(12) Filed: Jan. 27, 1934
Revised U.S. Application

(2) Continuation of application No. 612, filed on Dec. 11, 1932.

(30) Foreign Application Priority Data
 AA 50, 871 (17) ~~as an invention of~~ 0115326
 Publication Classification

(3) In Cl. _____ 1948 LEO
 (3) In Cl. _____ 1951

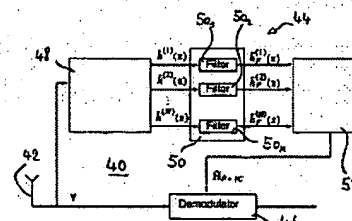
Abstract

is a multi-valued function depending on a continuous variable. The method proposed in this paper is described.

each channel exhibits broad amplification (2) suggesting fractal-like convergence from adjacent channels and/or

potential estimate ($\hat{\theta}_{\text{ML}}$) for the observed population and

Do not let the evidence for the lawrence overtake you.



	U	1	Document ID	Issue Date	Pages	Title	Current OR	Current	Ret	Inventor
1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	US 20040185801 A1	20040923	16	Channel estimation in a multi-carrier transmit diversity syste	455/101			Pauli, Mathias et al.
2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EP 1282245 A1	20030205	23	Channel estimation in a multi-carrier transmit diversity syste				PAULI, MATHIAS et al.